Two Reports from Jean Slaughter's February 2006 trip to CERN

1. Summary of Meeting with Eugenia Hatziangeli – Feb 2, 2006

I meet with Eugenia Hatziangeli Feb 2, 2006. . We only had 45 minutes as she had to go to a medical appointment. I think much of what was said is very similar to what Suzanne has already reported.

They do essentially all of their development on the desktops running Windows XP in their offices. These machines are not on the TN, but are trusted machines on the general CERN network. Trusted machines have fixed IP addresses so they can't be wireless or DHCP. They get into the TN via a "hole" in the gateway. I'm assuming this means the list of allowed IP addresses is hard-coded into a router.(Eugenia didn't know the exact mechanism. It is definitely NOT VPN.) As we have heard the trusted machines have to be CERN.CH and CERN.CH has to be physically on the CERN site according to the IT division.

At the present time they are still using VPN from home but they have to promise that the VPN machine is a pure work machine so that there is no possibility for something your kids do contaminating it. I forgot to ask if there is a date set for VPN being turned off.

They know they have to solve the remote access problem for their own people. Whatever works for them can be applied to us. The currently implemented approved approach via terminal service is totally inadequate. Eugenia said flatly that you can't possibly do code development that way except for very small bug fixes. Their proposed solution is dedicated machines for terminal services. The ones used currently are public to everyone at CERN and they are slow because they are overloaded. The hope is that one or more private TS server machine will be much faster. A subsequent discussion with a programmer who has been using TS said that 1 hop is Ok. However, if there are 1 or 2 other people on the TS, he can tell how diligently they are working. He said two hops are impossible. She made the interesting observation that since we are 7 hours behind them we can probably share their machine.(s) She said it was very unlikely that they would be using it heavily after working hours as people will stay in their offices if they have to work overtime.   On the other hand, machines are cheap, so getting our own managed by them is probably not a big deal. Has anyone explicitly asked them if they will manage a machine if we buy it? If this doesn't work they are taking about a user name/password authenticated VPN for a few trusted people. They will push very hard for this.

There is a development file server which is a trusted machine on the GN and a production file server on the TN which is an Exposed machine on the TN. The database servers are also exposed machines.

IT handles the database machines. There are 4 databases:
1. controls
2. measurement (7 day wrap over-write)
3. logging - subset of measurement, but forever.
4. parameters, such as machine model for offline analysis.

Code Development: She recommends we do everything exactly like they do, following the instructions on their web pages. This means Eclipse and their scripts such as fetchjava. Everything gets downloaded to your machine so you can develop completely independently

Code Testing. This is a serious issue for them as well as for us. Last week at Chamonix, their group leader insisted that they needed dedicated software test time put into the schedule.

Role based access is definitely of interest to them but they don't have the manpower for it at this time.

She was impressed by WebEx.

Questions for another meeting/email

1. How soon will they get a dedicated terminal service machine? Is cconsistent with the date at which VPN is no longer allowed?
2. How is access to an exposed machine handled? Can anyone on the CERN GN access it?
3. What is the exact mechanism that trusted machines use to be accepted by the network?

4. When does VPN go away?
5. How developed are the tools and the procedures for offline analysis?

2. Report on Video-Issues and Meeting with Philippe Potdevin

Video-conferencing: Erik Gottschalk and I investigated issues associated with video conferencing for LHC@FNAL participation in meetings related to beam commissioning.   There are three meeting rooms in or close to the CCC building: the Glass Box, right by the LHC circle in the CCC, the big room upstairs in the CCC, and the Pavilion conference room in Building 936, across the street from the CCC. Erik G. and I measured all three. See https://docdb.fnal.gov/CMS/DocDB/0007/000717/002/Video%20Conferencing%20for%20CCC.pdf.
Pierre Charrue told Erik and I that he wants to install the FNAL provided system in the Glass Box and CERN will buy an identical system for the Pavilion conference room. He wants us to make a proposal. The 2nd floor conference room in the CCC is large, but has such a low ceiling that video conferencing equipment doesn't make sense. CERN intends to install LCD screens halfway down the room so that people can see. We asked about intercepting the signal from the video projector to the screens and making it available at Fermilab and by extension at other conference rooms at CERN. We told to discuss the idea with Philippe Potdevin, the person responsible for installing the video projector and screens.

I meet Philippe and he was very receptive to the idea. He gave me literature on the screens and video projector. The current plans are for an ASK C420 video projector hooked up to 2 32 inch Samsung SyncMaster 323T displays. The video projector model might change. When I explained our desire to observe the meetings in that room from FNAL, and that other people might like the same thing in Meyrin, he immediately saw it as a good idea. I drew a picture showing the idea of the Polycom QSX box with VGA in and Ethernet out and he was interested. However, he explained that his first choice would be the general system that CERN is developing to connect together their conference rooms. They got a system (he couldn't give me the name) 1-2 years ago but it has a bug that they are trying to fix . It becomes useless if several rooms participate. It also involves a camera and a computer.   He was immediately motivated to call David Underhill who is the person responsible for the general CERN system to check the current status and ask if 1) he could connect to it at the CCC, and 2) if the video could be made available at FNAL, more precisely, outside of CERN. He will send me email as soon as he learns anything.